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***DEL SIGLO XIX AL XXI. TENDENCIAS Y DEBATES***  
(Alicante, 20-22 de septiembre de 2018)

Mónica Moreno Seco (coord.)  
Rafael Fernández Sirvent y Rosa Ana Gutiérrez Lloret (eds.)



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## WAR AND SENSORY HISTORY: SOME REFLECTIONS ON ALTERNATIVE APPROACH

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It is not a secret that since its early days war is a form of organized violence. Although this fact sounds trivial, violence can still be sadly considered as one of the most effective driving forces in history. In her classical text from the 1960s, Hannah Arendt clearly formulated this pessimistic idea by explaining that as long as violence remains the *ultima ratio* of politics, war will continue to be crowned as one of the major motive forces in history<sup>5668</sup>.

But violence not only takes forms of political actions or compels others to act against their own free will but also affects the way individuals and armies are waging their acts of warfare. In the long evolution of war that goes from the 'muscle to the missile', technology seems to play a significant role. In fact, it assisted in bringing the multi-facades of violence under a one roof-concept we briefly term as war. With the assistance of technology, the act of waging war turned to be a goal for itself. As a result, the evolution of warfare technology became the crux of placing war and warfare within a broader socio-cultural context.

In his well-known study on the process of civilization one of the ground father of modern sociology, Norbert Elias suggested a semiotic explanation for the way the fork and the knife made their way from the battlefield to the dining tables of the feudal nobility in Europe<sup>5669</sup>. But if we look on the other side of the coin we can clearly formulate that such a transition became firstly possible as early as the knife and the fork were recognized as instruments of war. Namely, only when their cultural semiotics as weapons was recognized by the Feudal society their shift to kitchen instruments could firstly realized. If we assume that functionality itself is only part of the game, then we can draw a direct line of continuity between technological progress and the civilization process of warfare technology already prior to the establishment of modern armies in the 17<sup>th</sup> century. In a tragic irony, the more wars were understood in terms of a civilized engagement that was subordinated to a special rule of conduct the more they were regarded as unavoidable.

Within this context, it seems that from early stages it was no longer possible to divorce the story of war from the story of warfare technology. Moreover, you receive the accumulating impression that the story of warfare technology plays a significant role in bringing together the 'soft' and 'hard' sides of progress in a given society. Joachim Radkau in his study on the relation between technology and society in early modern Germany has shown us that the question of technological progress is not only a matter of functionality but also closely related to matters of aesthetics and culture<sup>5670</sup>. Continuing this line of thought, we can assume that the study of warfare technology in a given society can reveal us much of its cultural dispositions in general. We can go a one step

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<sup>5668</sup> Hannah ARENDT: *On Violence*, New York, Harvest Books, 1970, p. 11.

<sup>5669</sup> Norbert ELIAS: *The Civilizing Process. Sociogenetic and Psychogenetic Investigations*, Oxford, Blackwell, 1995.

<sup>5670</sup> Joachim RADKAU: *Technik in Deutschland vom 18. Jahrhunderts bis heute*, Frankfurt am Main, Campus Verlag, 1995.

further and claim that in the instance of warfare technology we can also learn about the cultural standpoint toward violence as well as the popular notions toward past, present and future conflicts<sup>5671</sup>.

On the ground, however, the inability to imagine what we do not know led to a split between the development of warfare technologies and their actual deployment in combat. Furthermore, when it comes to the use of technology in war we are always facing the risk of engaging tomorrow's weapons for fighting the wars of yesterday. If we take the First World War as a paradigmatic instance, then you can notice a split that existed since its early stages between the available warfare technology of the time and the inability to deploy it effectively. It goes without saying that within such a large-scale conflict between the old, the new and the unknown, technology filled the gap by leading the belligerents to a mutual industrial butchery and disproportional use of force. Needless to say, that such a disastrous interplay between technology and violence in war was not only restricted to the Eastern and Western Fronts but also affected remote theatres such as the Near East and Mesopotamia.

The reasons for rejecting warfare technology at the time were manifold. Whereas the policy makers put their verve on the power of diplomacy the generals were still trapped in their global class restricted worldview of how to engage war properly. As a result, for those who were called for the colours in summer 1914 the first encounters with war were frequently experienced as a mixture of dread and fascination. It nestled somewhere between the actual war situation, the naïve and biased image of past wars and the first- time encounter with a sense of collective patriotism that only a state of emergency can produce. The fact that so many were involved in the conflict also affected the way the war mediated at home through national, public and private memories. However, as we learned from the studies Marc Ferro, Samuel Hynes, Paul Fussell and Jay Winter, just to mention the most well-known, the traumas of the war were frequently replaced with positive images that sought to suppress the horrible reality of a daily skirmish between armies of faceless combatants with kitsch stereotypes of bravery and chivalry<sup>5672</sup>.

Paradoxically, the situation did not alter much in the rest years of the war. Although new technologies found their way to the battlefield, they were still treated with great suspicion. During the most stages of the First World War, the belligerent countries remained rather suspicious when it came to the embracement of new warfare technologies in the battlefield. In many instances, the theoretical potential of technology to affect the course of the war either led to underestimation or overestimation of its role in battle. The two most well-known examples are the story of the military airplane and the story of the submarine. Through most of the war, airplanes were still considered as a marginal side of the battle. Despite this fact, during the inter-war period they turned to be one of the most significant contributions to modern warfare. On the other hand, we can see how many hopes were raised by the prospect deployment of submarines. Despite their clear tactical advantages, the role of submarines was overestimated in the First World War and was falsely considered as the ultimate wonder weapon that could win the war alone. Needless to say, that in

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<sup>5671</sup> One of the most chilling examples is the birth of the machine gun and its deployment within the context of civil wars and colonial wars. For this see mostly: John ELLIS: *The Social History of the Machine Gun*, Baltimore, John Hopkins University Press, Chp. 4.

<sup>5672</sup> The body of knowledge on the indirect reflections and impacts of the First World War is simply endless. Just to mention few classical studies. Marc FERRO: *The Great War 1914-1918*, London, Routledge, 1973; Paul FUSSELL: *The Great War and Modern Memory*, New York, Oxford University Press, 1975; Jay WINTER: *War Beyond Words: Languages of Remembrance from the Great War to the Present*, Cambridge, Cambridge University Press, 2017.

the First World War as well as in the Second World War this thesis proved to be only partially correct<sup>5673</sup>.

The manifold relation between warfare technology and war call for searching alternative approaches to examine the human experience under fire. Moreover, in searching for a global dimension of warfare experience it seems that from the standpoint of warfare technology we receive the impression that one of the most revealing points to explore is the interplay between war, technology and the sensory shift in the perception of warfare. This can be applied not only to the First World War but to any past or present conflict. Moreover, in focusing on the sensory history of warfare we are liberated from the hermeneutical deadlock of the nation state and its paradigms. Nevertheless, by embracing the study of sound and its impacts in war we are also given the opportunity to get closer to the soft sides of human experience under extreme conditions. If we take for instance the story of warfare sounds, then we can clearly indicate to what extent modern warfare created new sonic environments. This new art of man-made soundscape not only expanded the existing «sonic vocabulary» of those who were already familiar with the sounds of war, but also exposed many more civilians and combatants to this new and unpleasant soundscape of modern industrial war.

Exploring the sound of war does not restrict itself to the study of the immediate warfare situation but also enable us to observe war through its memories as well. In this sense, for those who were trapped under fire the sonic experiences of war not only remained at the front but also invaded the ears and souls at home. Sound of war turned to be the contextual sonic experience of anyone who lived in times of mass violence. Since the sense of hearing is a universal faculty given regardless to questions of class, gender, religion or national identity it affected the lives of all combatants and non-combatants on a transnational basis. Sound even took indirect effects such in the instance of triggering traumas. As we have learned from the studies in Post-Traumatic Stress Disorder (PTSD) of war veterans sounds and above all harmless civil sounds can trigger traumas long after the war ended and in different times and places. In fact, the complex relation between sound and traumatic memories of war is not limited to the experience of the First World War but can be seen as an indispensable part of any combat situation. Therefore, it is perhaps not surprising that Martin Doughty have shown us lately a similar painful connection between sound and trauma faced by American war veterans from the war in Iraq<sup>5674</sup>.

## Sound and War

If we observe the First World War as our pivotal example for explaining the shifting role of warfare sounds on human experience, then we can claim that in contrast to any former violent engagement this war was much louder in scale as well as in volume. The significant loudness of the First World

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<sup>5673</sup> Gerhard WEINBERG: *A World at Arms. A Global History of World War II*, Cambridge, Cambridge University Press, 1994.

<sup>5674</sup> Martin DOUGHTY: *Listening to War. Sound, Music and Survival in Wartime Iraq*, New York, Oxford University Press, 2015.



War is also remarkable in comparison to other large-scale conflicts such as the sounds of American Civil War, the Crimean War or even the Russo-Japanese war of 1905<sup>5675</sup>.

The increasing loudness of the First World War rooted in many factors. One of the most revealing one is the combination between pre-war technological improvement of weaponry system and a lack of a coherent strategy that in many instances led to a situation of over-firing and over-killing. The improvement of breach loading mechanism during the late 1870s took within this context a disastrous impact. It not only speeded up the tempo of the battle beyond the speed of the cavalry but also seeded the false notion that technology alone can win the conflict. As a result, the deployment of massive firepower from the early stages of the war created a close linkage between loud thunder and military superiority. This sonic assumption seems to dominate the soundscape of the First World War since the deployment of the German Howitzers against the town of Liège in summer 1914 until the mass artillery barrage of the Somme and Verdun. What is common to all these instances is the fact the battleground turned into a gigantic spectacle of sounds and noises. To make this point clearer, let us take just one concrete example. At the eve of the war the German army possessed approximately 7680 artillery cannons including mortars and light machine guns. At the last year of the war the very same army operated only on the Western Front more than 11,200 artillery cannons. These were organized in 12 batteries that fired in a tempo of more than twenty thousand shells a month. From the sonic perspective of the war this piece of data is much horrifying. If we assume that every Howitzer produced in a single shot a sound of approximately 175 decibels now let us try to figure out what does it mean when only a dozen of these monsters firing simultaneously.

The sonic shift of the war occurred in the loudness as well as in the quality of sound. In fact, since the introduction of gun powder to Europe in the eleventh century, the idea that the battlefield should become much louder was rather logic. What was new, however, was the amount of those who were involuntarily invaded by the sounds of war and the way these sounds shook their existing auditory world. The fact that the First World War was a large-scale conflict which involved hundreds of thousands from many nations, cultures and histories created for the first time a colossal human laboratory which expanded the experience of being under fire beyond the framework of the nation state or the colonial other. In this sense, the First World War not only introduced the sounds of war to wider audiences but also gave a new bitter and painful taste to the time honoured sonic paradigm of the louder the better.

But as Murray Shaffer and Jacques Attali have shown us, louder is not always the better<sup>5676</sup>. Perhaps to the contrary. In fact, within the context of industrial war louder frequently meant many more casualties but not necessarily a tactical superiority. It rests in the simple fact that the predominance of firepower over the front and the dissipated nature of distance and saturated weapons undermined the traditional spatial concept of the front as a theatre. In the Great War sound therefore, became a product of a new kind of deadly performativity that its boundaries were defined through the limits and the range of its firepower. In practice, it formulated a new combat experience that although saw some instances in previous wars perfected itself only since 1914 onwards. This new art of combat experience entangled multiple sensory experiences that tore down any connection between physical environment and expected sensory experience and reaction.

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<sup>5675</sup> For the soundscape of the American Civil War see for instance: Mark SMITH: *Listening to Nineteenth Century America*, Chapel Hill, The University of North Carolina Press, 2001.

<sup>5676</sup> Murray SCHAFFER: *The Tuning of the World*, New York, Random House, 1977; Jacques ATTALI: *Noise. The Political Economy of Music*, Minnesota, University of Minnesota Press, 1985.

Within such a man-made skirmish, sound and its proper encoding under fire turned to be powerful means of survival. In a matter of fact, the ability to listen carefully to the sound of the battle assisted you to improve your spatial orientation at the battlefield. It was done simply by training yourself to distinguish between friendly and hostile sounds. All that, without the need to maintain any visual contact with the adversary. In the industrial war the sight was no longer a reliable distance sense since in many situations it was lost behind smoke, fire, and man-made obstacles. In fact, tuning your ears correctly turned to be your best means of survival in an environment that was characterized by a constant danger that was not only inescapable but also invisible.

### Modes of Listening

In order to treat sound as a serious hermeneutic tool of a wartime past we need first to distinguish between the object of study and its perception. From the standpoint of sound, the complexity was nicely formulated by the 18<sup>th</sup> century German scientist and philosopher Georg Christoph Lichtenberg. For him, the vibration of the air is meaningless when there is no ear around. Only during the encounters between the vibration of the air and human ear sound is born<sup>5677</sup>. Resting on this vivid metaphor, it seems that within the context of the Great War we can trace three modes of listening under fire. Moreover, although these modes of listening are suggested for the soundscape of the Great War they still share many similarities to present warfare situations. The first mode is what I call «trench listening», the second is «underwater listening» and the last is «aerial listening». Apart from the fact that all of them resemble the three major spatial dimension of modern warfare they also suggest an explaining model for the complex relation between sound and sight in times of war<sup>5678</sup>.

Let us begin with the «trench listening». The gradual shift of the land war to trench warfare gradually built up a unique warfare situation in which the combat zone was no longer restricted to fighting hostilities per se. As John Ellis, Marc Ferro and Paul Fussell have shown us, being in the trenches was consisted of a 24/7 life circle which part of the time also spent on actual fighting. Observed from the sonic perspective, the trenches and their singular environment turned to be within context a distinctive environment which created a singular soundscape of its own. This soundscape responded to a specific ecology of listening and required a constant learning, tuning, teaching and mastering. All that was achieved under the extreme conditions of a continuous war and was done almost without any reliance on visual contact. In fact, the more you mastered the skill of trench listening the more you increased your chances to survive. As a re-occurring motive in wartime evidences we can see that good trench listening skills also credited you among your fellow soldiers.

Skilful and fine listening to the sounds of war became even more crucial underwater where sound and obliteration turned to be the bread and butter of submarine warfare. One members of

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<sup>5677</sup> Lichtenberg, Georg CHRISTOPH: *Vermischte Schriften*, Leipzig, 1801.

<sup>5678</sup> On the three modes of listening see: Jean YARON: *Noises of Modernity. Hearing Experiences in Germany, 1914-1945*, Tel Aviv, Resling, 2011 (Heb); Jean YARON: «The Soundmindedness of the Great War. Viewing History through Auditory Lenses» in: Feiereisen Florence and Alexandra Hill (ed.) *Germany in the Loud Twentieth Century. An Introduction*, Oxford/New York, Oxford University Press, 2011.

the German submarine U-205 described it «as a two week of a continuous nightmare consisted of alarm bells, sounds of explosions, blast of depth charges and endless noises of propellers». For those who operated the subs underwater this new art of warfare required a new art of listening solely based on the imaginative power of human perception. Only through sounds, these combatants managed to translate the invisible locations of the enemy into a cognitive map of military operations. One of the *echolot* operators in the German U-20 recalled in his memoirs the persecutory ping sound of a British destroyer coming from above while the submarine was in a «silent mode» (*Horchfahrt*) with a desperate hope not to be detected. In fact, as we learned from Friedrich Kittler warfare submarine technologies were indirectly responsible for several of the finest post war acoustic technologies. The microphone, the magnetophon as well as short wave wireless communication technologies are just few examples to mention.

The youngest branch of all of wartime listening but with the most far reaching impacts is what I call «aerial listening». The war in the air and the development of the interrupter mechanism in 1916 marked the official birth of the fighter plane. The coming of the fighter plane created a new art of warfare in which the eye of the pilot was fully synchronized with his guns. This know-how skill not only introduced the concept of death coming from above, but also created a new form of aerial listening. Cruising above the combat zone, the aviator of the Great War was placed in an impossible sensory position. From the high attitude of his airplane the pilot could observe the front from horizon to horizon. However, as Paul Virilio nicely formulated in his classic study on «war and cinema» it was a distorted image<sup>5679</sup>.

The vertical perspective of the aviator made the situation on the ground to look unreal from above. Therefore, being encapsulated in his flying machine the modern pilot was fully alienated from the sensory environment of his victims on the ground. Cool sight and steady hands were all the pilot required in order to play his role in the industrial war effectively. But in such a super-visible constellation, the pilot was not only blinded by his aerial vision but also muted by the loud noises and the sounds of his machine. Within such a dreadful context, the act of killing from above became a practical skill mostly based on sealing you ears and focusing you vision on the optical gunsight of your machine. For him, observing the war under his wings was like observing a remote sensory and harmless experience or like one of the WWI fighter pilots described it as a sitting in a huge water tank.

This brings me to my concluding remarks of my short presentation by turning the spotlight the global role of sound in war. In the long evolution of warfare technology in times of peaces and more particular in times of war it seems that the First World War became one of the most important way stations. In many ways the war that broke out in 1914 created a dreadful mixture between the old and the new. Subsequently it created a new warfare experience never largely experienced before. Among the major changes in the warfare experience we can point the finger on what a soundscape historian might call the ecology of warfare sounds<sup>5680</sup>. In this sense, it seems that sound with its global dimension became one of the major point that contributed to the global experience of the Great War. The fact that so many around the globe were exposed to same sounds and reacted similarly almost simultaneously made the war of 1914-1918 into a singular moment in the history of sound in war. Such a paradox between the global and the singular seem to undermine any hermeneutics of comparative study. Otherwise we seem to fall to what Droysen had already

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<sup>5679</sup> Paul VIRILIO: *War and Cinema. The Logistics of Perception*, London, Verso, 1989.

<sup>5680</sup> Steven GOODMAN: *Sonic Warfare. Sound, Affect, and the Ecology of Fear*, Cambridge Mass., MIT Press, 2010.



warned us in his *Historik*. Namely, that in contrast to social sciences the hermeneutical power of history is not resting in the search for continuities but rather in raptures<sup>5681</sup>.

After all, raptures and not continuities are the semiotic places where new historical events are born.

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<sup>5681</sup> Gustav DROYSEN: *Grundriss der Historik*, Leipzig, 1882.